MAR 0 1 2004 Ap

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appacant:

MUNNS

Examiner:

UNKNOWN

Sepral No

10/723,382

Group Art Unit:

UNKNOWN

i iica.

NOVEMBER 25, 2003

Docket:

3165.41USU1

Due Date:

FEBRUARY 25, 2004

Title:

SUPER LATTICE MODIFICATION OF OVERLYING TRANSISTOR

CERTIFICATE UNDER 37 CFR 1.8:

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, with sufficient postage, in an envelope addressed to: , Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on February 25, 2004.

By: Sate Suno

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450 23552

Sir:

We are transmitting herewith the attached:

Transmittal Sheet in duplicate containing Certificate of Mailing

Information Disclosure Statement, Form 1449, 10 Reference(s)

Return postcard

Please consider this a PETITION FOR EXTENSION OF TIME for a sufficient number of months to enter these papers or any future reply, if appropriate. Please charge any additional fees or credit overpayment to Deposit Account No. 13-2725. A duplicate of this sheet is enclosed.

MERCHANT & GOULD P.C. P.O. Box 2903, Minneapolis, MN 55402-0903 612.332.5300

Name: Anna M. Nelson

Reg. No.: 48,935 ANelson:PLSklg

PATENT

732,382

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:

MUNNS

Examiner:

UNKNOWN

Serial No .:

10/723,382

Group Art Unit:

UNKNOWN

Filed:

NOVEMBER 25, 2003

Docket No.:

3165.41USU1

Title:

SUPER LATTICE MODIFICATION OF OVERLYING TRANSISTOR

CERTIFICATE UNDER 37 CFR 1.8:

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, with sufficient postage, in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on February 25, 2004.

> By: Name:

LOUNDS

INFORMATION DISCLOSURE STATEMENT (37 C.F.R. § 1.97(b))

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

With regard to the above-identified application, the items of information listed on the enclosed Form 1449 are brought to the attention of the Examiner.

This statement should be considered because it is submitted within three months of the filing date of the above-identified application, which is not an application under 37 C.F.R. § 1.53(d). Accordingly, no fee is due for consideration of the items listed on the enclosed Form 1449.

In accordance with 37 C.F.R. §1.98(a)(2)(i), a copy of the U.S. patents and U.S. patent publications listed on the enclosed Form 1449 are not provided, as this application was filed after June 30, 2003. A copy of any foreign patent document or "Other Document" listed on the Form 1449 is enclosed, in accordance with 37 C.F.R. §1.98(a)(2).

No representation is made that a reference is "prior art" within the meaning of 35 U.S.C. §§ 102 and 103 and Applicants reserve the right, pursuant to 37 C.F.R. § 1.131 or otherwise, to establish that the reference(s) are not "prior art." Moreover, Applicants do not represent that a reference has been thoroughly reviewed or that any relevance of any portion of a reference is intended.

Consideration of the items listed is respectfully requested. Pursuant to the provisions of M.P.E.P. 609, it is requested that the Examiner return a copy of the attached Form 1449, marked as being considered and initialed by the Examiner, to the undersigned with the next official communication.

Please charge any additional fees or credit any overpayment to Deposit Account No. 13-2725.

Respectfully submitted,

MERCHANT & GOULD P.C. P.O. Box 2903

Minneapolis, MN 55402-0903

612/332-5300

Date: <u>February 25,2004</u>

23552

PATENT TRADEMARK OFFICE

Anna M. Nelson Reg. No. 48,935

AMN:PLSklg

MAR 0 1 2004

FORM 1449*
INFORMATION DISCLOSURE STATEMENT

IN AN APPLICATION

(Use several sheets if necessary)

Docket Number: Application Number: 3165.41USU1 10/723,382

Applicant: MUNNS

Filing Date: 11/25/2003 Group Art Unit: UNKNOWN

A DEMORAL		U	I.S. PATENT DOCUME	NTS		
EXAMINER INITIAL	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	3,677,836	07/18/1972	Lorenz		· · ·	
	4,205,331	05/27/1980	Esaki et al.			
	4,673,959	06/16/1987	Shiraki et al.			
	5,087,576	02/11/1992	Edmond et al.			
	5,107,314	04/21/1992	Kahng et al.			
	5,138,408	08/11/1992	Ando			
	5,147,817	09/15/1992	Frazier et al.			
	5,162,243	11/10/1992	Streit et al.			
	5,192,987	03/09/1993	Khan et al.			
	5,208,820	05/04/1993	Kurihara et al.			
	5,284,782	02/08/1994	Jeong et al.			
	5,296,395	03/22/1994	Khan et al.			
	5,300,186	04/05/1994	Kitahara et al.			
	5,408,487	04/18/1995	Uchida et al.			
	5,435,264	07/25/1995	Santiago et al.			
	5,449,930	09/12/1995	Zhou			
	5,484,664	01/16/1996	Kitahara et al.			
	5,690,737	11/25/1997	Santiago et al.		****	
	5,665,618	09/09/1997	Meyer et al.			
	5,670,798	09/23/1997	Schetzina			
	5,679,965	10/21/1997	Schetzina			
	5,751,753	05/12/1998	Uchida			
	5,804,834	09/08/1998	Shimoyama et al.			
	5,901,165	05/04/1999	Uchida			
	5,903,017	05/11/1999	Itaya et al.			·
	5,932,006	08/03/1999	Santiago et al.			

EXAMINER	DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form for next communication to the Applicant.

Date Mailed: February 25, 2004 Sheet 2 of 2

FORM 1449* INFORMATION DISCLOSURE STATEMENT	Docket Number: 3165.41USUI	Application Number: 10/723,382		
IN AN APPLICATION	Applicant: MUNNS			
(Use several sheets if necessary)	Filing Date: 11/25/2003	Group Art Unit: UNKNOWN		

	6,048,748 6,051,866 6,147,364 6,150,674 6,201,264 B1 6,208,001 B1		04/11/2000	Khare et al.		
			04/18/2000	Shaw et al.		
			11/14/2000	Itaya et al.		
			11/21/2000	Yuri et al.		
			03/13/2001	Khare et al.		
			03/27/2001	Santiago et al.		
	6,306,212 B1		10/23/2001	Santiago et al.		
·	6,342,411 B1		01/29/2002	Pitts, Jr.		
	6,521,961 B1		02/18/2003	Costa et al.		
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)						
		Fan, Z. et al., "Suppression of leakage currents and their effect on the electrical performance of AlGaN/GaN modulation doped field-effect transistors," <i>Appl. Phys. Lett.</i> , Vol. 69, No. 9, pp. 1229-1231 (August 26, 1996)				
		Kusakabe, K. et al., "Reduction of threading dislocations in migration enhanced epitaxy grown GaN with N-polarity by use of AlN multiple interlayer," <i>Journal of Crystal Growth</i> , Vol. 230, pp. 387-391 (2001)				
		Heying, B. et al., "Role of threading dislocation structure on the x-ray diffraction peak widths in epitaxial GaN films," <i>Appl. Phys. Lett.</i> , Vol. 68, No. 5, pp. 643-645 (January 29, 1996)				
		Hirayama, H. et al., "Fabrication of a low-threading-dislocation-density Al _x Ga _{1-x} N buffer on SiC using highly Sidoped Al _x Ga _{1-x} N superlattices," <i>Appl. Phys. Lett.</i> , Vol. 80, No. 12, pp. 2057-2059 (March 25, 2002)				
		Nitta, S, et al., "Mass transport and the reduction of threading dislocation in GaN," <i>Applied Surface Science</i> , Vol. 159-160, pp. 421-426 (2000)				
		Sverdlov, B. et al., "Formation of threading defects in GaN wurtzite films grown on nonisomorphic substrates," <i>Appl. Phys. Lett.</i> , Vol. 67, No. 14, pp. 2063-2065 (October 2, 1995)				
		Wang, H. et al., "AIN/AlGaN superlattices as dislocation filter for low-threading-dislocation thick AlGaN layers on sapphire," <i>Appl. Phys. Lett.</i> , Vol. 81, No. 4, pp. 604-606 (July 22, 2002)				
		Weimann, N. et al., "Scattering of electrons at threading dislocations in GaN," J. Appl. Phys., Vol. 83, No. 7, pp. 3656-3659 (April 1, 1998)				
		Zhang, Y. et al., "Charge control and mobility studies for an AlGaN/GaN high electron mobility transistor," J. Appl. Phys., Vol. 85, No. 1, pp. 587-594 (January 1, 1999)				
		Zhang, X. et al., "Enhanced optical emission from GaN films grown on a silicon substrate," <i>Appl. Phys. Lett.</i> , Vol. 74, No. 14, pp. 1984-1986 (April 5, 1999)				

23552 PATENT TRADEMARK OFFICE

EXAMINER	DATE CONSIDERED
	•

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form for next communication to the Applicant.